### **ACTIONS**

In addition to structural BMPs, non-structural BMPs are everyday actions or behaviors that can help improve water quality.

- ♦ Never put anything into a storm drain, drainage ditch, or creek.
- ♦ Always clean up after your pet.
- ◆ Use fertilizers and pesticides only when needed and apply the correct amounts. (Get a free soil test from the Cooperative Extension!)
- Dispose of leaves, grass clippings, and other yard waste properly.
- Throw litter in the trash. Reduce, reuse, and recycle.
- ◆ Recycle motor oil, antifreeze, and other auto fluids at an auto parts store or the County landfill.
- ♦ Dispose of paints, pesticides, and other household hazardous chemicals properly.
- Wash your vehicle on the grass or take it to a commercial car wash
- Check your vehicle for leaks and repair them.
- ◆ Tell a friend or neighbor how they can help protect our waterways too!

### FOR MORE INFORMATION ON BEST MANAGEMENT PRACTICES (BMPs)



Obtain a *free*Citizen's Guide
featuring structural
BMPs and plant
lists by calling
(910) 343-4777
or visiting <u>www.</u>
ci.wilmington.
nc.us

City of Wilmington Storm Water Services PO Box 1810 Wilmington, NC 28402





# Best Management Practices:

TURN YOUR YARD INTO PART OF THE SOLUTION

In Wilmington, storm water runoff does not go to a treatment plant. Instead, runoff and the pollution in it, flows into our creeks and streams, then eventually into the Cape Fear River or Intracoastal Waterway.





Best Management Practices (BMPs) are actions, behaviors, or on-the-ground landscaping practices that reduce pollution and/or the amount of runoff flowing into waterways. BMPs can be *structural*, such as a rain garden, or *non-structural*, such as picking up pet waste. This brochure focuses on *structural* BMPs that can be used in your yard.





## STORM WATER BEST MANAGEMENT PRACTICES (BMPS)



Rain Barrels are designed to capture and store storm water runoff from rooftops, which can then be used to water the landscape (with a regular or soaker hose) or indoor houseplants. Several rain barrels can be connected to store additional water. A rain barrel

with a tight lid or screen will prevent mosquitoes.

**Benefits:** Reduce storm water runoff leaving your property, water your landscape for free, conserve water, and save money on water utility bills.



Pervious Materials, also known as porous or permeable materials, allow runoff to soak into the ground instead of running off. Pervious materials such as gravel, ecostone and gridblock, can be used for driveways, walkways, and low flow parking areas.

**Benefits:** Reduce storm water runoff, decrease flooding, filter pollutants in runoff, and recharge groundwater.



Native Plants are indigenous to a particular region and are adapted to the local climate and soil conditions. Native plants provide nectar, pollen and seeds that serve as food for birds,

wildlife, and beneficial insects as well.

**Benefits:** Eliminate/reduce the use of fertilizers, pesticides and irrigation, decrease yard work, create a healthy and diverse native ecosystem.



**Swales** are long, shallow, grassy depressions designed to hold and convey large amounts of runoff. They are much wider than they are deep. Swales are found alongside highways,

streets, sidewalks, and parking lots.

**Benefits:** Collect runoff and reduce flooding, slow down and filter runoff, prevent erosion, and easy-to-maintain.



Buffers are areas of vegetation located next to a water body. Buffers are a barrier between storm water runoff and a receiving body of water such as a stream, lake, etc.

**Benefits:** Stabilize banks and decrease erosion, control flooding, provide habitat for wildlife, act as a pollution barrier between water and developed land, provide privacy, and increase property values.



Habitat Gardens are planted with vegetation known for attracting birds, butterflies, beneficial insects, and small wildlife. Place anywhere with good sunlight, soil, and water.

**Benefits:** Provide habitat for wildlife in urban areas, improve water quality, reduce mosquitoes by attracting their predators, and enhance the beauty of your yard.



Retention ponds, also called wet ponds, maintain a permanent pool of water in addition to temporarily storing storm water runoff flowing from roads, parking lots, and other impervious (hard) surfaces.

**Benefits:** Remove pollutants from storm water runoff including sediment, nutrients, toxins, and heavy metals. If planted and maintained properly, retention ponds can provide aesthetic and recreational value.



Stream Bank Restoration is the process of rebuilding or stabilizing the banks of streams, creeks, or rivers. When stream banks erode, they carry soil and other debris into the water. A stream may fill in and become so shallow that it reduces

flow and no longer provides habitat for fish and wildlife that depend on its water for survival. Stream bank erosion can cause flooding, property loss, and poor water quality.

**Benefits:** Prevent erosion, restore habitat, and the new vegetation filters polluted storm water runoff.



Backyard Wetlands can temporarily store, filter, and clean runoff from your lawn, rooftop, or driveway. Sediment, nutrients, heavy metals, and bacteria are able to settle out, be

taken up by wetland plants, or be "digested" by naturally occurring microorganisms. Wetlands should be planted in naturally occurring wet areas on your property.

**Benefits:** Absorb and filter runoff, reduce flooding, prevent erosion, recharge groundwater, provide wildlife habitat, and enhance the beauty of your yard.



Rain Gardens/Bioretention Areas are placed between sources of runoff (roofs, driveways, parking lots) and runoff destinations (storm drains, street, ditch). Rain gardens have

a shallow depression in the center designed to capture runoff and allow it to soak back into the ground. They are planted with trees, shrubs, and perennials that are suitable for both wet and dry conditions.

**Benefits:** Reduce runoff leaving your property, reduce flooding, recharge groundwater, provide habitat, and enhance the beauty of your yard.



Shade Trees act as the environment's natural solution to air and water pollution by converting carbon dioxide to oxygen and absorbing polluted runoff. In developed areas, shade

trees reduce the temperature of runoff flowing from pavement or concrete, into receiving waterways.

**Benefits:** Anchor soil in place, prevent erosion, reduce heating and cooling costs at home, absorb and filter polluted runoff, improve air quality, and increase property values.

#### LOCAL RESOURCES

Wilmington Storm Water Services 343-4777
Cape Fear River Watch, Inc. 762-5606
NHC Cooperative Extension 452-6393
NH Soil & Water Conservation District 798-6032
Airlie Gardens Environmental Education 367-9081